

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-7 (Cancelled)

8. (Currently amended) A vaccine comprising a vaccine vector and at least one first nucleic acid molecule, wherein each first nucleic acid is expressed as a polypeptide, and wherein the nucleic acid molecule comprises a nucleic acid molecule comprising a nucleic acid sequence which encodes a polypeptide selected from any one of:

(a) SEQ ID No: 2; or

(b) an immunogenic fragment comprising at least 12 consecutive amino acids from a polypeptide of (a) SEQ ID No:2, wherein the fragment defines an immunogenic epitope of Chlamydia; and

(c) a polypeptide of (a) or (b) which has been modified without loss of immunogenicity, wherein said modified polypeptide is at least 75% identical in amino acid sequence to the corresponding polypeptide of (a) or (b);

wherein the vaccine optionally comprises a second nucleic acid encoding an additional polypeptide which enhances the immune response to the polypeptide expressed by said first nucleic acid

wherein the nucleic acid molecule is operably linked to a promoter functional in a mammalian cell.

9. (Currently amended) The vaccine of claim [[8]] 39 wherein the second nucleic acid encodes an additional polypeptide is a Chlamydia polypeptide.

Claim 10 (Cancelled)

11. (Currently amended) A pharmaceutical composition comprising a vaccine comprising the vaccine vector according to claim 8 and a pharmaceutically acceptable carrier.

Claims 12-38 (Cancelled)

39. (New) The vaccine vector of claim 8 further comprising another nucleic acid encoding an additional polypeptide which enhances the immune response to the polypeptide having SEQ ID No: 2.
40. (New) The vaccine of claim 8 wherein the promoter is a viral promoter.
41. (New) The vaccine of claim 9 wherein the promoter is a viral promoter.
42. (New) The vaccine of claim 11 wherein the promoter is a viral promoter.
43. (New) The vaccine vector of claim 39 wherein the promoter is a viral promoter.
44. (New) The vaccine vector of claim 8 wherein the promoter is cytomegalovirus (CMV) promoter.
45. (New) The vaccine of claim 9 wherein the promoter is cytomegalovirus (CMV) promoter.
46. (New) The vaccine of claim 11 wherein the promoter is cytomegalovirus (CMV) promoter.
47. (New) The vaccine vector of claim 39 wherein the promoter is cytomegalovirus (CMV) promoter.